

APPENDIX B

Pending Claims

26. A method for enhancing or inducing immunity to a viral infection comprising expressing a serpin or a serpin mimetic in a cytotoxic T-lymphocyte of a subject by introducing an expression construct comprising a DNA segment encoding the serpin or serpin mimetic under the control of a promoter active in the cytotoxic T-lymphocyte.
27. The method of claim 26, wherein enhancing or inducing immunity comprises increasing the number of cytotoxic T-lymphocyte memory cells.
28. The method of claim 26, wherein enhancing or inducing immunity comprises augmenting cytotoxic T-lymphocyte function.
29. The method of claim 26, wherein enhancing or inducing immunity comprises augmenting cytotoxic T-lymphocyte memory cell development.
30. A method for enhancing or inducing immunity to a virus comprising:
- a) obtaining a cytotoxic T-lymphocyte that comprises an expression vector that comprises a DNA segment encoding a serpin or a serpin mimetic under the control of a promoter active in the cytotoxic T-lymphocyte; and
 - b) administering the cytotoxic T-lymphocyte to a subject in need thereof.
31. The method of claim 30, wherein the expression vector is a viral expression construct.

32. The method of claim 31, wherein the viral expression construct is selected from the group consisting of a retrovirus, an adenovirus, an adeno-associated virus, a herpesvirus, a polyoma virus, and a vaccinia virus.

33. The method of claim 31, wherein the vector is a retroviral vector.

34. The method of claim 30, wherein the serpin or serpin mimetic inhibits granzyme activity, inhibits granzyme transcription, inhibits granzyme translation, increases granzyme degradation, or destabilizes granzyme.

35. The method of claim 30, wherein the serpin or serpin mimetic inhibits granzyme function.

37. The method of claim 30, wherein the serpin or serpin mimetic is a serpin.

38. The method of claim 30, wherein the serpin is SPI6, PI9, PI-6, monocyte neutrophil elastase inhibitor (MNEI), PI-8, plasminogen activator inhibitor 2 (PAI-2).

39. The method of claim 38, wherein the serpin is SPI6.

40. The method of claim 38, wherein the serpin is PI9.

42. The method of claim 30, wherein the virus is HIV, LCMV, HCV, HTLV-1, HTLV-2, EBV, HBV, human cytomegatovirus, Herpes simplex 1, Herpes simplex 2, hepatitis G, enterovirus, dengue fever virus, or rabies virus.
43. The method of claim 42, wherein the virus is HIV.
44. The method of claim 42, wherein the virus is LCMV.
48. The method of claim 30, wherein inducing or enhancing immunity comprises increasing the number of cytotoxic T-lymphocyte memory cells.
49. The method of claim 30, wherein inducing or enhancing immunity comprises augmenting cytotoxic T-lymphocyte function.
50. The method of claim 30, wherein inducing or enhancing immunity comprises augmenting cytotoxic T-lymphocyte memory cell development.
61. The method of claim 26, wherein the expression construct is a viral expression construct.
62. The method of claim 61, wherein the viral expression construct is selected from the group consisting of a retrovirus, an adenovirus, an adeno-associated virus, a herpesvirus, a polyoma virus, and a vaccinia virus.

63. The method of claim 62, wherein the expression construct comprises a retroviral vector.
64. The method of claim 26, wherein the serpin or serpin mimetic inhibits granzyme activity, inhibits granzyme transcription, inhibits granzyme translation, increases granzyme degradation, or destabilizes granzyme.
65. The method of claim 26, wherein the serpin or serpin mimetic inhibits granzyme function.
66. The method of claim 26, wherein the serpin or serpin mimetic is PI9 or a PI9 mimetic.
67. The method of claim 26, wherein the serpin or serpin mimetic is a serpin.
68. The method of claim 67, wherein the serpin is SPI6, PI9, PI-6, monocyte neutrophil elastase inhibitor (MNEI), PI-8, plasminogen activator inhibitor 2 (PAI-2).
69. The method of claim 68, wherein the serpin is SPI6.
70. The method of claim 68, wherein the serpin is PI9.
71. The method of claim 26, wherein the virus is HIV, LCMV, HCV, HTLV-1, HTLV-2, EBV, HBV, human cytomegalovirus, Herpes simplex 1, Herpes simplex 2, hepatitis G, enterovirus, dengue fever virus, or rabies virus.

- 72. The method of claim 69, wherein the virus is HIV.
- 73. The method of claim 69, wherein the virus is LCMV.
- 74. The method of claim 30, wherein the serpin or serpin mimetic is PI9 or a PI9 mimetic.